

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Please amend the claims as follows.

Listing of Claims:

1-8. (Canceled)

9. (Currently amended) An isolated expression vector comprising a first nucleic acid sequence that encodes a ~~WI2~~ heavy chain variable region sequence comprising the CDR-1 sequence NYWMT (SEQ ID NO:1), CDR-2 sequence SITSTGGGTYHAESVKG (SEQ ID NO:2), and CDR-3 sequence DDYGGQSTYVMDA (SEQ ID NO:3) and a second nucleic acid sequence that encodes a ~~WI2~~ light chain variable region sequence comprising the CDR1 sequence RASQDIGNYLR (SEQ ID NO:4), CDR2 sequence GATNLAA (SEQ ID NO:5), and the CDR3 sequence LHHSEYPYT (SEQ ID NO:6).

2 10. (Original) An isolated expression vector according to claim 9 wherein said light and heavy chains are chimeric or are humanized.

3 11. (Currently amended) A host cell comprising said expression vector according to claim 9.

4 12. (Currently amended) An isolated first expression vector comprising a nucleic acid sequence that encodes a ~~WI2~~ heavy chain variable region sequence comprising the CDR-1 sequence NYWMT (SEQ ID NO:1), CDR-2 sequence SITSTGGGTYHAESVKG (SEQ ID NO:2), and CDR-3 sequence DDYGGQSTYVMDA (SEQ ID NO:3) and an isolated second expression vector comprising a nucleic acid sequence that encodes a ~~WI2~~ light chain variable region sequence comprising the CDR1 sequence RASQDIGNYLR (SEQ ID NO:4), CDR2 sequence GATNLAA (SEQ ID NO:5), and CDR3 sequence LHHSEYPYT (SEQ ID NO:6).

- 5 13. (Currently amended) An isolated first and second expression vectors according to claim 12, wherein said nucleic acid sequences encode a chimeric or humanized WI2 light and heavy chain.
- 6 14. (Currently amended) A host cell comprising said first and second expression vectors according to claim 12.
15. (Withdrawn) A method of stimulating an immune response in a patient against cancers expressing carcinoembryonic antigen, which comprises administering to said patient an effective amount of a vaccine comprising the humanized anti-idiotype antibody or antibody fragment encoded by the nucleic acid of claim 21, conjugated to a soluble immunogenic carrier protein, optionally in combination with a pharmaceutically acceptable vaccine adjuvant.
16. (Withdrawn) A method of diagnosis or treatment of a patient, wherein an antibody or antibody fragment that specifically binds CEA is used as a targeting, pre-targeting or therapy agent, either as an unconjugated antibody or fragment or as a component of a conjugate, wherein an anti-idiotype antibody encoded by the nucleic acid according to claim 21 is used to clear antibody or antibody fragment that is not bound to CEA.
17. (Canceled)
18. (Withdrawn) A method according to claim 16, wherein said anti-idiotype antibody or antibody fragment is labeled with a radiolabel, an enzyme, or a fluorescent agent.
19. (Withdrawn) A vaccine, comprising the humanized anti-idiotype antibody or antibody fragment encoded by the nucleic acid of claim 21, conjugated to a soluble immunogenic carrier protein, for use in stimulating an immune response in a patient against a cancer characterized by expression of CEA.
- 7 20. (Currently amended) A nucleic acid encoding a chimeric anti-idiotype antibody or fragment thereof, wherein said antibody or fragment thereof specifically binds to the idiotype

region of an anti-CEA monoclonal antibody and the chimeric anti-idiotype antibody or fragment comprises comprising the rWI2 light chain variable region sequence
DIQLTQSPASLPASLGDRVTITCRASQDIGNYLRWFQQKPGKSPRLLIYG
ATNLAAGVPSRFSGSRSGSDFLTINSLESEDMAIYYCLHHSEYPYTFGIGTKLERKR
(SEQ ID NO:22) and heavy chain variable regions sequence QVQLQESGGDLVQPGRSLKL
SCVASGFTFSNYWMTWIROAPGEGLEWVASITSTGGGTYHAESVKGRFTISRDNS
KSTLYLQMNSLRPDTATYYCSRDDYGGQSTYVMDAWGQGSSVTVSS (SEQ ID
NO:18).

- 8 21. (Currently amended) A nucleic acid encoding a humanized anti-idiotype antibody or fragment thereof, wherein said antibody or fragment thereof specifically binds the idiotype region of an anti-CEA monoclonal antibody and the humanized anti-idiotype antibody or fragment comprises comprising rWI2 CDR regions CDR-1 sequence NYWMT (SEQ ID NO:1), CDR-2 sequence SITSTGGGTYHAESVKG (SEQ ID NO:2), CDR-3 sequence DDYGGQSTYVMDA (SEQ ID NO:3), CDR1 sequence RASQDIGNYLR (SEQ ID NO:4), CDR2 sequence GATNLAA (SEQ ID NO:5), and CDR3 sequence LHHSEYPYT (SEQ ID NO:6) and humanized FR regions.
- 9 22. (Currently amended) A nucleic acid encoding an anti-idiotype antibody or fragment thereof, wherein said antibody or fragment thereof specifically binds the idiotype region of an anti-CEA monoclonal antibody and the anti-idiotype antibody or fragment comprises comprising CDR-1 sequence NYWMT (SEQ ID NO:1), CDR-2 sequence SITSTGGGTYHAESVKG (SEQ ID NO:2), CDR-3 sequence DDYGGQSTYVMDA (SEQ ID NO:3), CDR1 sequence RASQDIGNYLR (SEQ ID NO:4), CDR2 sequence GATNLAA (SEQ ID NO:5), and CDR3 sequence LHHSEYPYT (SEQ ID NO:6).